

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/010517

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/56 C12N15/62 C12N15/866 C12N9/24 C12N5/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE, Sequence Search

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MCKENZIE EDWARD ET AL: "Biochemical characterization of the active heterodimer form of human heparanase (Hpa1) protein expressed in insect cells." BIOCHEMICAL JOURNAL, vol. 373, no. 2, 15 July 2003 (2003-07-15), pages 423-435, XP002310698 ISSN: 0264-6021 cited in the application	1-10,20, 21
A	page 426, paragraph 2 - page 434, left-hand column; figures 1,4 ----- -/-	11-19, 22-25

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

16 December 2004

Date of mailing of the international search report

07/01/2005

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HULETT MARK D ET AL: "Cloning of mammalian heparanase, an important enzyme in tumor invasion and metastasis" NATURE MEDICINE, NATURE AMERICA, NEW YORK, US, vol. 5, no. 7, July 1999 (1999-07), pages 803-809, XP002139969 ISSN: 1078-8956 cited in the application	1-10,20, 21
A	page 804, left-hand column, line 1, paragraph 1 - page 808, left-hand column, paragraph 2; figures 1,2	11-19, 22-25
P,X	NARDELLA CATERINA ET AL: "Mechanism of activation of human heparanase investigated by protein engineering." BIOCHEMISTRY, vol. 43, no. 7, 24 February 2004 (2004-02-24), pages 1862-1873, XP002310699 ISSN: 0006-2960 the whole document	1-25
Y	FAIRBANKS M B ET AL: "Processing of the human heparanase precursor and evidence that the active enzyme is a heterodimer" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 274, no. 42, 15 October 1999 (1999-10-15), pages 29587-29590, XP002232892 ISSN: 0021-9258 cited in the application	1-10,20, 21
A	page 29588, left-hand column, last paragraph - page 29590, right-hand column, last paragraph	11-19, 22-25
Y	LEVY-ADAM F ET AL: "Heterodimer formation is essential for heparanase enzymatic activity" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, ACADEMIC PRESS INC. ORLANDO, FL, US, vol. 308, no. 4, 5 September 2003 (2003-09-05), pages 885-891, XP004447196 ISSN: 0006-291X	1-10,20, 21
A	page 885, right-hand column, last paragraph - page 886, left-hand column, paragraph 1 page 887, left-hand column, paragraph 3 - page 890, right-hand column, paragraph 1	11-19, 22-25
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>HULETT M D ET AL: "Identification of active-site residues of the pro-metastatic endoglycosidase heparanase" BIOCHEMISTRY, AMERICAN CHEMICAL SOCIETY. EASTON, PA, US, vol. 39, no. 51, 26 December 2000 (2000-12-26), pages 15659-15667, XP002279983 ISSN: 0006-2960 page 15661, right-hand column, paragraph 2 - page 15663, left-hand column, paragraph 1; figure 1 page 15665, left-hand column, paragraph 3 - page 15666, right-hand column, paragraph 2</p>	1-25
Y	<p>WO 99/57244 A (AYAL HERSHKOVITZ MATY ; YACOBY ZEEVI ORON (IL); PECKER IRIS (IL); BEN) 11 November 1999 (1999-11-11) cited in the application page 35, line 34 - page 62, line 26; figure 29; examples 1-5</p>	1-10, 20, 21
A	<p>WO 00/77221 A (MERCK PATENT GMBH ; HOFMANN UWE (DE); GUESSOW DETLEF (DE); KORDOWICZ M) 21 December 2000 (2000-12-21) cited in the application *SEQ ID NOs 1-7* abstract; figures 7-10</p>	13, 14
Y	<p>DAWN PARKS T ET AL: "RELEASE OF PROTEINS AND PEPTIDES FROM FUSION PROTEINS USING A RECOMBINANT PLANT VIRUS PROTEINASE" ANALYTICAL BIOCHEMISTRY, ACADEMIC PRESS, SAN DIEGO, CA, US, vol. 216, no. 1, 1 February 1994 (1994-02-01), pages 413-417, XP002017664 ISSN: 0003-2697 abstract</p>	10
A	<p>GARCIA-CAMPAYO V ET AL: "NOVEL RECOMBINANT GONADOTROPINS" TRENDS IN ENDOCRINOLOGY AND METABOLISM, ELSEVIER SCIENCE PUBLISHING, NEW YORK, NY, US, vol. 12, no. 2, March 2001 (2001-03), pages 72-77, XP001071097 ISSN: 1043-2760 page 74, left-hand column, paragraph 4 - right-hand column, paragraph 2 page 73; figure 1</p>	11-19, 22-25

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